

CLAIMS

1. An intermediate support element for a front fender (5) of a motor vehicle, this support element
5 being able to be mounted on an upper beam (3) of the chassis of the motor vehicle and comprising a body (6) and at least one breakable protuberance (7A, 7B) projecting upward and to which said front fender (5) is intended to be fixed, said protuberance (7A, 7B)
10 comprising at least one front wall (28) connected by a frangible zone (26) to said body (6), a rear wall (27) connected by the frangible zone (26) to said body (6) and a third wall (29, 30) which the frangible zone (26) connects to said body (6) and which rigidly connects
15 the front wall (28) and the rear wall (27) to each other.

2. The intermediate support element as claimed in claim 1, characterized in that opposite the third wall
20 (29, 30), the breakable protuberance (7A, 7B) has a fourth wall (29, 30) which the frangible zone (26) connects to said body (6) and which rigidly connects the front wall (28) and the rear wall (27) to each other.

25

3. The intermediate support element as claimed in claim 2, characterized in that the frangible zone (26) surrounds the breakable protuberance (7A, 7B).

30 4. The intermediate support element as claimed in any one of the preceding claims, characterized in that the frangible zone is a thinned zone (26) having a thickness which is in particular less than the body (6) and the front wall (28), the rear wall (27) and the
35 third wall (30) of the protuberance (7A, 7B).

5. The intermediate support element as claimed in any one of the preceding claims, characterized in that

the third wall (30) of the protuberance (7A, 7B) is drilled with a hole (18) for the passage of means (19) for fixing the fender (5) to the protuberance (7A, 7B).

5 6. The intermediate support element as claimed in any one of the preceding claims, characterized in that said body (6) has an upper wall (9) which is provided with the protuberance (7A, 7B), at least one upper oblique release ramp (25) on the side of an edge (5a)
10 of the front fender (5) fitted to the upper wall (9) and, at its lowest point, reaching a side edge of this upper wall (9).

7. The intermediate support element as claimed in
15 any one of the preceding claims, characterized in that it is molded in a thermosetting polymer.

8. The intermediate support element as claimed in claim 7, characterized in that the thermosetting
20 polymer is filled with fibers and non-filiform particles.

9. The intermediate support element as claimed in claim 8, characterized in that it contains between 25
25 and 40% by weight of thermosetting polymer, between 18 and 25% by weight of glass fibers and between 40 and 50% by weight of non-filiform particles.

10. The intermediate support element as claimed in
30 any one of claims 7 to 9, characterized in that the thermosetting polymer is electrically conductive.

11. The intermediate support element as claimed in any one of the preceding claims, characterized in that
35 it has means (20, 23) for positioning at least one front piece of equipment of the motor vehicle, such as a lighting assembly, a front facade or a hood.

12. The intermediate support element as claimed in any one of the preceding claims, characterized in that in section along any antero-posterior vertical plane, the protuberance (7A, 7B) is inside a first enveloping
5 circle (U_1) which has its center (I_1) in the middle of a front portion of the frangible zone (26), in front of the protuberance (7A, 7B), and passes through the middle (I_2) of a rear portion of the frangible zone (26), behind the protuberance (7A, 7B), and in that in
10 section along any antero-posterior vertical plane, the protuberance (7A, 7B) is inside a second enveloping circle (U_2) which has its center (I_2) in the middle of the rear portion of the frangible zone (26), and passes through the middle (I_1) of the front portion of the
15 frangible zone (26).

13. A method for molding an intermediate support element (4) as claimed in claim 4, in which a mold (50) is used which comprises at least one fixed part (52) and one movable part (51) and which delimits a molding
20 chamber (53) and at least one discharge passage (54) communicating with this molding chamber, the latter comprising at least one portion (55) which corresponds to said thinned zone (26) of the intermediate support element (4) and which is located between the fixed part (52) and the movable part (51) of the mold (50), this
25 method comprising steps in which:

- a) the molding chamber (53) is provided with more
30 molding paste (56) than is necessary for molding the intermediate support element (4), and then

- b) the movable part (51) of the mold (50) is moved toward the fixed part (52) of the mold (50) so as to
35 cause the molding paste (56) to flow between these fixed and movable parts and to discharge a surplus of molding paste (56) through the discharge passage (54), until the mold (50) delimits, apart from shrinkage, the final form of the intermediate support element (4).

14. The method as claimed in claim 13,
characterized in that in step b), the movable part (51)
of the mold (50) is moved in a direction (D)
5 substantially perpendicular to said thinned zone (26)
of the intermediate support element (4) during molding.